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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/737,319      | 12/14/2000  | Satoru Toguchi       | 1558-14             | 9502             |

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| EXAMINER |
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YAMNITZKY, MARIE ROSE

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

1774

DATE MAILED: 08/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                |                                |  |
|------------------------------|--------------------------------|--------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>09/737,319  | Applicant(s)<br>TOGUCHI ET AL. |  |
|                              | Examiner<br>Marie R. Yamnitzky | Art Unit<br>1774               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-12 and 14-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-12, 14-17 and 19-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. This Office action is in response to applicant's amendment filed July 12, 2004, which amends claims 2, 7, 9, 16, 18, 20 and 22-24. Applicant's remarks submitted with the non-compliant amendment received June 01, 2004 have also been considered.

Claims 1-5, 7-12 and 14-24 are pending.

2. Applicant's amendment overcomes the issues raised in the rejection under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, in the Office action mailed March 02, 2004, except for the issue of the limitations imposed by the term "singly". The examiner withdraws the rejection as pertains to the term "singly" in consideration of applicant's arguments and in further consideration of the claim language as a whole. Noting that the term "singly" is used in combination with the open language "including" in claims 1 and 7, the examiner interprets the claim language as requiring at least one layer that includes only one perylene compound of formula [1] but which may include one or more compounds that are not perylene compounds of formula [1] (in the case of claim 1 and dependents), or that includes only one benzoperylene compound of formula [2] but which may include one or more compounds that are not benzoperylene compounds of formula [2] (in the case of claim 2 and dependents). If a layer of specified function as in claims 3-5 and 10-12 contains a mixture of perylene or benzoperylene compounds of the specified formula, then the device must comprise two layers including the perylene or benzoperylene compounds of the specified formula.

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3. The rejection of claim 16 under 35 U.S.C. 103(a) as unpatentable over Tamano et al. (US 6,329,084 B1) or JP 11-144869 is overcome by applicant's amendment.

The rejection of claim 18 under 35 U.S.C. 103(a) as unpatentable over JP 11-185961 is overcome by applicant's amendment.

The rejection of claims 18 and 24 under 35 U.S.C. 103(a) as unpatentable over JP 10-88120 is overcome by applicant's amendment.

The obviousness-type double patenting rejection of claim 18 over claims of U.S. Patent No. 6,329,083 B1 is overcome by applicant's amendment.

4. Claim 18 is allowed.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-5 and 19-22 stand rejected under 35 U.S.C. 102(e) as being anticipated by Toguchi et al. (US 2003/0134145 A1) for reasons of record in the Office action mailed March 02, 2004.

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7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 3-5, 14, 15, 19 and 21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Tamano et al. (US 6,329,084 B1) as applied to claims 1, 3-5 and 14-16 in the Office action mailed June 09, 2003.

9. Claims 1, 3-5, 14, 15 and 19-21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11-144869 as applied to claims 1, 3-5 and 14-16 in the Office action mailed June 09, 2003.

10. Claims 1-5, 7-12, 14-17 and 19-24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11-185961 as applied to claims 1-5 and 7-12 in Paper No. 5 (the Office action mailed December 03, 2002) and the additional reasons set forth below.

Subsequent to Paper No. 5, claims 1 and 7 were amended to require any alkyl group used as the group with steric hindrance to be an alkyl group having not less than four carbon atoms. A partial machine-assisted translation of the reference (previously provided to applicants) shows that the prior art discloses alkyl groups having four or more carbon atoms (paragraph [0022]).

With respect to the group with steric hindrance as defined in claims 14-17, the prior art

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specifically discloses t-butyl, t-butoxy and phenyloxy as possible substituents (paragraphs [0022], [0026] and [0036]).

11. Claims 1-3, 7-10, 14-17 and 19-23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-88120 as applied to claims 1-3 and 7-10 in Paper No. 5 (the Office action mailed December 03, 2002) and for the additional reasons set forth below.

Subsequent to Paper No. 5, claims 1 and 7 were amended to require any alkyl group used as the group with steric hindrance to be an alkyl group having not less than four carbon atoms. The prior art discloses alkyl groups having four or more carbon atoms. With respect to the group with steric hindrance as defined in claims 14-17, the prior art specifically discloses t-butyl, t-butoxy and phenoxy (phenyloxy) as possible substituents. See p. 14 of the previously provided translation.

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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13. Claims 1-5, 7-12 and 19-24 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 6,329,083 B1 as applied to claims 1-5 and 7-12 in Paper No. 5 (the Office action mailed December 03, 2002).

14. Applicant's arguments filed June 01, 2004 have been fully considered but they are not persuasive.

With respect to the rejection under 35 U.S.C. 102(e), applicant argues that the published application of Toguchi et al. (US 2003/0134145 A1) is not available as prior art under 35 U.S.C. 102(e). Applicant argues that because four of the five named applicants in the present application are also named in the '145 application publication, the '145 application publication does not represent an application for patent "by another".

The examiner respectfully disagrees. The '145 application publication represents an application for patent "by another" because Hiroshi Tada is named as an applicant in the present application but not in the '145 application publication. Applicant's attention is respectfully directed to MPEP 706.02(a) II.B.

With respect to the rejections under 35 U.S.C. 103(a) based separately on JP 11-144869 and JP 11-185961, applicant argues that at the time the present invention was made, the present invention was owned by or subject to an obligation of assignment to NEC Corp, which is said to be the same assignee as in the cited references. This argument is not persuasive because common ownership at the time of the invention does not preclude a prior art rejection under 35

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U.S.C. 103(a) via 35 U.S.C. 102(b). JP 11-144869 and JP 11-185961 are prior art under 35

U.S.C. 103(a) via 35 U.S.C. 102(b).

With respect to the rejections under 35 U.S.C. 103(a) based separately on US 6,329,084 B1 to Tamano et al. and JP 10-88120, applicant argues that the only teaching or suggestion to make the presently claimed combination is in applicant's disclosure and therefore the rejections are improper. Applicant argues that even if similar structures will likely yield similar results, that is not a reason for making a change. Applicant argues that "[o]ne seeking to produce the results taught by the reference would use the specific compounds taught by that reference because those presumably *do* work" and "[t]here is no motivation to change something that presumably works."

These arguments are not persuasive. The Tamano '084 patent discloses perylene compounds having diarylamino substituents. The perylene compounds may have additional substituents, and substituents within the scope of the presently required group with steric hindrance are explicitly disclosed in the Tamano patent. JP 10-88120 discloses a compound having a condensed aryl group having 30 or less carbon atoms, such as a perylene group, substituted with two disubstituted amino groups. The condensed aryl group may have additional substituents, and substituents within the scope of the presently required group with steric hindrance are explicitly disclosed in JP 10-88120. A *prima facie* case of obviousness may be made when chemical compounds have very close structural similarities and similar utilities. "An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that



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compounds similar in structure will have similar properties.” *In re Payne*, 606 F.2d 303, 313, 203 USPQ 245, 254 (CCPA 1979).

Further with respect to the rejection based on the Tamano ‘084 patent, applicant argues that what is taught in the reference is not the same as the presently claimed invention because the reference pertains to red light emitting materials whereas the present claims are not so limited. This argument is not persuasive because red light emitting materials are not excluded from the presently claimed devices.

Further with respect to the rejection based on JP 10-88120, applicant argues that what is taught in the reference is not the same as the presently claimed invention because the reference discusses the successive lamination of various layers whereas the present claims contain no such limitation. This argument is not persuasive because multilayered devices are not excluded from the presently claimed devices.

Applicant argues that a feature of the present invention is suppression of concentration quenching whereas the Tamano ‘084 patent and JP 10-88120 do not have any such object. This argument is not persuasive because, as previously noted, both of these references disclose substituents which are within the scope of the presently required group with steric hindrance.

With respect to the obviousness-type double patenting rejection, applicant has not provided any persuasive arguments as to why it would not have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to make EL devices comprising species of compounds within the scope of formula C3 of the patent claims. As noted in the rejection,

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groups meeting the limitations of the presently required group with steric hindrance are recited in the patent claims.

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

16. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 6:30 a.m. to 4:00 p.m. Monday, Tuesday, Thursday and Friday, and every other Wednesday from 6:30 a.m. to 3:00 p.m.

The current fax number for Art Unit 1774 is (703) 872-9306 for all official faxes. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

MRY  
August 27, 2004

*Marie R. Yamnitzky*

MARIE YAMNITZKY  
PRIMARY EXAMINER

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